



United States Environmental Protection Agency

Region 10 Emergency Response Unit

POLLUTION REPORT

I. HEADING

Date: October 13, 2001
Subject: Industrial Chrome Plating
From: Dan Heister, OSC, USEPA, Region 10, Emergency Response Unit
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TO: See Distribution List on last page

POLREP No.7

II. BACKGROUND

Site ID: 8P
Delivery Order No: E-01-001
Response Authority: CERCLA
FPN No: 987175064
NPL Status: NA
State Notification: Oregon Department of Environmental Quality
Action Memo Status: August 2001
Removal Start Date: August 27, 2001
Expected Completion Date: November 2001

III. SITE INFORMATION

A. Incident Category

Fund-Lead Removal Action

B. Site Description

1. Site Location

The Industrial Chrome Plating site is located in a mostly residential neighborhood on the southeast corner of NE 62nd Avenue and NE Hassalo Street in Portland, Oregon. The Portland Rifle Club and Deluxe Fuel are west of the site; an empty lot is to the east. The southern boundary of the property borders the City of Portland's Tri-Met transportation railroad track and Interstate Highway 84, which are in a swale known as Sullivan Gulch.

The site consists of a main building and an outside storage area on 0.27 acres. A storage lot to the east of the property (with cars and trailers) that has been impacted by the facility's operations is an additional quarter acre. The main building is separated into two parts: the northern portion and the southern portion. Most of the plating tanks are in the northern portion, while the southern portion contains a few smaller plating tanks and an area set aside for buffing and polishing parts. A small office is in the northwest corner of the building. The south side of the property has an asphalt driveway, a small patch of grass, and a large cellular communications tower. The southern portion of the property is fenced. Immediately south of the fence the terrain slopes steeply down for 15 to 20 feet into Sullivan Gulch and railroad tracks. Runoff water from the site flows to the gulch and railroad tracks, and access is unrestricted. The empty lot to the east of the site is fully fenced and contains a large advertisement billboard, and some parked trailers and boats. The east property boundary is fenced at the south end of the property and the building wall makes up the north end. Areas of gravel and broken asphalt make up a ten foot wide strip between the property and NE 62nd Avenue. On the west side of 62nd Avenue is the Portland Gun Club to the north and Deluxe Fuel to the south. North of the site is a residential neighborhood. Three houses are located directly across the street and one on the opposite corner of NE Hassalo and NE 62nd Avenue.

C. Assessment Results

In March of 1999, the EPA tasked Ecology and Environment Inc. (E & E) Superfund Technical Assessment and Response Team (START), to assess the risks associated with the Industrial Chrome Site. An integrated assessment of the site was conducted which identified elevated concentrations of chromium and lead at depth and in the surface of a majority of the samples. Based on the analytical results from this sampling event, the EPA tasked Ecology and Environment, Inc. to conduct a removal assessment at the ICP site to determine the full extent of surface and subsurface contamination both on and surrounding the ICP property.

Removal assessment results indicated the presence of hexavalent chromium in the surface soil contamination on the south and east sides of the building. Subsurface soil contamination is concentrated in the first ten feet on the south and east sides of the building. However, in the vicinity of the dry well (southeast of the building), significant subsurface soil contamination extends to a depth of at least 30 feet bgs, and subsurface soil. Subsurface soil samples collected from beneath the building also contained significant levels of contamination. Assessment of subsurface

contamination west and south of the buildings was incomplete because overhead and subsurface utilities interfered with access to this area.

Many detections of lead in samples collected on the ICP property exceed Region 9 Preliminary Remediation Goals and/or Oregon Cleanup Levels.

Six people worked at the site until it voluntarily ceased operations in August 2001. The site is located in a mixed commercial/industrial and residential neighborhood with homes as little as 100 feet from the property to the north. Access to the site is not completely restricted, thereby increasing the potential for humans and animals to come in contact with contaminants. Soils to the south and east of the ICP building are fenced, preventing access to the area. Some of this area is capped with grass or asphalt; however, most of the contaminated area is exposed soil. Access to contaminated soils on the north and west side of the building is unrestricted. Soils on surrounding residential properties do not contain chromium above regulatory levels.

The possibility for off-site migration of chromium and lead, specifically via direct exposure to soil, particulates, surface water runoff, and groundwater can be reduced only if contaminated surface and subsurface soils at the site are removed or immobilized.

In August 2001, EPA obligated funds to conduct a removal of the soil contamination at the Industrial Chrome site which will involve: razing the building; excavating and properly disposing of contaminated soil and debris; and restoring the property so that it may be used in the future.

IV. Removal Activities

A. Situation

1. Current Situation

October 8, 2001 (Monday)

Personnel on site: START (1), ERRS (6), USCG(1).

Weather: Partly cloudy with a high in the low 60s expected.

ERRS continues to excavate soil from areas underneath the leaking plating tanks as well as a dry well which was located southeast of the building near the billboard post. Contamination extends vertically in these areas at depths of 25 feet.

The amount of material removed from the site thus far is as follows:
Contaminated subtitle C soil and debris ~ 1,821 tons;
Contaminated subtitle D soil and debris ~ 300 tons;
Contaminated subtitle C concrete ~ 90 tons;
Contaminated subtitle D concrete ~ 100 tons;
Demolition debris from the facility ~ 137 tons;
Chromic Acid solution from the plating tanks ~ 4,000 gallons.

October 9, 2001 (Tuesday)

Personnel on site: START(1), EPA(1), EQM (6), USCG (1).
Weather: Cloudy skies with a high of 60° F expected.

While excavating the surface soils north of the former plating shop facing Hassalo Street, it is discovered that a vein of contaminated soil (visually identified as purple) is located approximately 3 feet north of the shop in an area that would have been the front yard of the plating shop. The contamination appears to cover an area 5 feet long by 3 feet wide and extends vertically to the bottom of the excavation pit (18 feet). This material is excavated and will likely be disposed as Subtitle C material based on the relationship between total chromium levels screened with the XRF and the samples which have failed TCLP regulatory levels.

Stockpiles 11, 12, and 13 have all passed the TCLP test. These soils were excavated from the surface (0-2 feet) of the eastern vacant lot. They will be transported to the Waste Management Hillsboro Landfill.

START discussed the specification for the backfill with the E&E engineering department. Remind ERRS to conduct the modified proctor test for the one-inch minus to determine the optimal moisture and density for the replacement material.

October 10, 2001 (Wednesday)

Personnel on site: START (1), EQM (6), EPA (1), USCG (1).
Weather: Rain all day with a high in the upper 50s expected.

Two loads of gravel (one-inch minus) have been deposited at the southwest corner of the site to aid in the loading of contaminated soil as the ground becomes slick from the increased precipitation.

The crew loads trucks bound for US Ecology of Idaho (Subtitle C) and the Waste Management Subtitle D landfill in Hillsboro, Oregon.

October 11, 2001 (Thursday)

Personnel on site: START(1), EPA (1), USCG(1), EQM (6).
Weather: Partly cloudy skies with a high of 60°F expected.

START screens soils in the eastern RV lot with the XRF and determines that soils are chromium-contaminated at depths greater than four feet. ERRS removed soil in lifts to this depth. It appears that debris has been buried in the central portion of the lot and further excavation will be required as chromium levels exceed 5,000 ppm.

ERRS crew begins to build a road into the pit beneath the plating facility (western excavation pit). The depth of the pit is 18 feet bgs and the crew plans to begin backfilling this area in 1-foot lifts. Twenty-nine loads of backfill were brought to the site today.

October 12, 2001 (Friday)

Personnel on site: EQM (6), START (1), EPA (2), USCG(1).

Weather: Cloudy skies with a high in the upper 50s expected.

The Field Density Report is conducted for the first foot of backfill material as per the E & E engineering specifications. Two tests are conducted in the west pit which indicate the compaction is satisfactory (95% and 98% of the maximum dry density) and the moisture content is between 4% and 5%. The modified proctor test results were prepared earlier in the day. The maximum dry density for the backfill soils is 140 pounds per cubic foot and the optimal moisture content is 8%. Eight additional loads of backfill are brought to the site today.

Additional screening of soils with the XRF in the central portion of the eastern RV lot indicated the contaminated debris extends to a depth over 15 feet bgs but northern, western, and eastern boundaries do exist. Another dry well, previously identified south of this area, and chromium contamination is known to be present at least 12 feet bgs in the well. Both the dry well in the southern portion of the eastern RV lot and the debris in the central portion of the RV lot will be excavated.

October 13, 2001 (Saturday)

Personnel on site: EQM (6), START (1).

Weather: Partly cloudy skies with a high of 70°F expected.

A shortened weekend workday, the ERRS crew stockpiles contaminated soils from the southern portion of the site, removing 3 feet of soil for loading on Monday. Twelve trucks were loaded in the morning for transport to USEI. ERRS will begin excavation of the contaminated soils in the east lot on Monday.

2. Removal Actions to Date

Contaminated soil was delivered this week to a RCRA Subtitle C landfill in Grand View, Idaho (US Ecology Idaho) and a Subtitle D facility in Hillsboro, Oregon.

October 8, 2001

Type	Quantity	Location Where Taken
Soil	6 truckloads	U.S. Ecology of Idaho (Grand View, Idaho)

October 9, 2001

Type	Quantity	Location Where Taken
Soil	6 truckloads	U.S. Ecology of Idaho (Grand View, Idaho)
Soil	6 truckloads	Waste Management (Hillsboro, Oregon)

October 10, 2001

Type	Quantity	Location Where Taken
Soil	10 truckloads	U.S. Ecology of Idaho (USEI) (Grand View, Idaho)
Soil	5 truckloads	Waste Management (Hillsboro, Oregon)

October 11, 2001

Type	Quantity	Location Where Taken
Soil	5 truckloads	U.S. Ecology of Idaho (USEI) (Grand View, Idaho)
Soil	3 truckloads	Waste Management (Hillsboro, Oregon)

October 12, 2001

Type	Quantity	Location Where Taken
Soil	9 truckloads	U.S. Ecology of Idaho (USEI) (Grand View, Idaho)

October 13, 2001

Type	Quantity	Location Where Taken
Soil	12 loads	U.S. Ecology of Idaho (USEI) (Grand View, Idaho)

3. Enforcement

Enforcement actions are being reviewed at this time by EPA.

B. Planned Removal Activities

The removal action will involve the excavation of the majority of soil contamination at the site. Clean backfill will replace the excavated soils and an impenetrable asphalt cap will be installed to prevent precipitation from migrating through the

site
soils.
The
cap
will
also
direct
surfac
e
water
away
from
the
site to
munici
pal
storm
drains.

C. Next Steps

EPA and E&E to continue to conduct soil sampling, air sampling, X-Ray Fluorescence metals screening, submittal of confirmation samples, and site documentation for the removal action until completion.

V. Cost Information

Estimated costs are summarized below:

	Established Ceiling	Estimated Costs (as of 10/13/01)
EPA	\$37,000	\$18,500
START	\$180,000	\$95,000
ERRS	\$1,200,000	\$736,000
Total	\$1,417,000	\$839,500

Note: The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

VI Disposition of Wastes

Contaminated soil has been transported to the Waste Management Hillsboro Landfill in Hillsboro, Oregon, and the U.S. Ecology of Idaho facility in Grand View, Idaho. Additional disposal facilities may be utilized to remove all of the wastes. Hazardous liquid wastes and building debris were removed from the site during the first two weeks of the removal action. The liquids were transported to Burlington Environmental in Tacoma, Washington for proper disposal. The building debris was delivered to the Roosevelt Regional Landfill in Roosevelt, Washington. Some solvents (acetone) remain in six 55-gallon drums awaiting proper disposal.

VII Distribution

To: Terry Eby, EPA Headquarters
Chris Field, Mary Matthews, OSCs, EPA Region 10 Emergency Response Unit
Oregon Department of Environmental Quality, Attention: Chuck Donaldson,
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EPA Oregon Office, Attention: Dan Opalski

VII Status

Site actions continue.